AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application. The text of any added material is shown in **underline**, and the text of any deleted matter is shown by ~~strikethrough~~, except that double brackets [[ ]] placed before and after the deleted characters may be used to show deletion of five or fewer consecutive characters.

Listing of Claims

1. (Currently Amended) In a color sequential projection system, an apparatus comprising:

a first set of light emitting devices (LEDs) to generate light having a first wavelength during a first emission time period;

a second set of LEDs to generate light having a second wavelength during a second emission time period, the second wavelength being different from the first wavelength;

a power supply providing a shared current source to the first and second set of LEDs;

a first switch arranged in series with the first set of LEDs;

a second switch arranged in series with the second set of LEDs;

a display controller coupled to the power supply and the first and the second switches, the display controller to generate a first and second control signal respectively in accordance with a first and second color frame data, the first control signal to operate

on at least the power supply or the first switch to enable the first set of LEDs during the first emission time period, and the second control signal to operate on at least the power supply or the second switch to enable the second set of LEDs during the second emission time period, wherein the light having the first wavelength and the light having the second wavelength can be [[~~blended~~]] **balanced**, at least in part, by adjusting durations of the first emission time period and the second emission time period; and

first and second light transmission guides to route light from the first and second sets of LEDs to first and second display devices.

2. (Currently Amended) The apparatus of claim 1, further comprising:

a third set of LEDs to generate light having a third wavelength during a third emission time period, the third wavelength being different from the first and second wavelengths;

a third switch coupled to the third set of LEDs, wherein the power supply provides the shared current source to the third set of LEDs; and

a third light transmission guide to route light from the third set of LEDs to a third display device;

wherein the display controller is further to generate a third control signal in accordance with a third color frame data, the third control signal operating on at least the power supply or the third switch to enable the third set of LEDs during the third emission time period, wherein the light having the first wavelength and/or the light having the second wavelength and the light having the third wavelength can be [[~~blended~~]]

balanced, at least in part, by adjusting the durations of the first emission time period, the second emission time period and the third emission time period.

3. (Previously presented) The apparatus of claim 2 wherein the first, second, and third sets of LEDs emit red, green, and blue light, respectively.

4. (Previously presented) The apparatus of claim 2 wherein the first, second, and third sets of LEDs emit yellow, cyan, and magenta light, respectively.

5. (Previously presented) The apparatus of claim 2 wherein the first, second, and third sets of LEDs are light emitting diodes.

6. (Previously presented) The apparatus of claim 2 wherein the first, second, and third sets of LEDs are laser diodes.

7. (Previously presented) The apparatus of claim 2–wherein the display controller generates a compensating control signal to operate on at least one of the first, second, and third switches to compensate for a failed LED in the first, second, and third sets of LEDs, respectively.

8. (Previously presented) The apparatus of claim 2, wherein the first, second, and third control signals further operate on a current level of a current source to

adjust the brightness of the light emitted by the first, second, and third sets of LEDs, respectively.

9. (Previously presented) The apparatus of claim 2, wherein at least one of the first, second, and third sets of LEDs further comprises of at least one set of series-parallel arrays of LEDs.

10. – 18. (Canceled)

19. (Currently Amended) In a color sequential projection system, a circuit comprising:

a means for generating light having a first wavelength during a first emission time period from a first set of light emitting devices (LEDs);

a means for generating light having a second wavelength during a second emission time period from a second set of LEDs, the second wavelength being different from the first wavelength;

a means for providing a shared current source to the first and second set of LEDs from a power supply;

a means for arranging a first switch in series with the first set of LEDs;

a means for arranging a second switch in series with the second set of LEDs;

a means for coupling a display controller to the power supply and the first and second switches, the display controller adapted to having a means for generating a first and second control signal respectively in accordance with a first and second color frame

sequential data, the first control signal operating on at least the power supply or the first switch to drive the first set of LEDs during the first emission time period, and the second control signal operating on at least the power supply or the second switch to drive the second set of LEDs during the second emission time period, wherein the light having the first wavelength and the light having the second wavelength can be [[~~blended~~]] **balanced**, at least in part, by adjusting durations of the first emission time period and the second emission time period; and

means for routing the light from the first and second sets of LEDs to first and second display devices.

20. (Currently Amended) The circuit of claim 19, further comprising:

a means for generating light having a third wavelength during a third emission time period from a third set of LEDs, the third wavelength being different from the first and second wavelengths;

a means for coupling a third switch to the third set of LEDs;

a means for providing the shared current source to the third set of LEDs from the power supply; and

means for routing the light from the third set of LEDs to a third display device;

wherein the display controller is further adapted to generate a third control signal in accordance with a third color frame sequential data, the third control signal operating on at least the power supply or the third switch to drive the third set of LEDs during the third emission time period, wherein the light having the first wavelength and/or the light having the second wavelength and the light having the third wavelength can be

[[~~blended~~]] **balanced**, at least in part, by adjusting the durations of the first emission time period, the second emission time period and the third emission time period.

21. – 22. (Canceled)

23. (Currently Amended) A method for driving an array of light emitting devices (LEDs) in a color sequential projection display system comprising:

receiving a respective first and second color frame image data;

generating a first and second control signal in accordance with the respective first and second color frame image data;

generating light having a first wavelength from a first LED color channel during a first emission time period in response to the first control signal;

generating light having a second wavelength from a second LED color channel during a second emission time period in response to the second control signal, wherein the light having the first wavelength and the light having the second wavelength can be [[~~blended~~]] **balanced**, at least in part, by adjusting durations of the first emission time period and the second emission time period; and

propagating the light from the first and second LED color channels to first and second display devices.

24. (Currently Amended) The method of claim 23, further comprising:

receiving a respective third color frame image data;

generating a third control signal in accordance with the respective third color frame image data;

generating light having a third wavelength from a third LED color channel during a third emission time period in response to the third control signal, wherein the light having the first wavelength and/or the light having the second wavelength and the light having the third wavelength can be [[~~blended~~]] **balanced**, at least in part, by adjusting the durations of the first emission time period, the second emission time period and the third emission time period; and

propagating the light from the third LED color channel to a third display device.

25. (Previously presented) The method of claim 24 wherein the first, second, and third LED color channels emit red, green, and blue light, respectively.

26. (Previously presented) The method of claim 24 wherein the first, second, and third LED color channels emit yellow, cyan, and magenta light, respectively.

27. (Previously presented) The method of claim 24 wherein the first, second, and third control signals operate on a power supply coupled to the first, second, and third LED color channels to enable the first, second, and third LED color channels, respectively.

28. (Previously presented) The method of claim 24 wherein the first, second, and third control signals operate on a first, second, and third switch coupled to the first,

second, and third LED color channels to enable the first, second, and third LED color channels, respectively.

29. (Previously presented) The method of claim 24, wherein the first, second, and third LED color channels comprise at least one of a plurality of series parallel array of light emitting diodes.

30. (Previously presented) The method of claim 24 wherein the first, second, and third LED color channels comprise at least one of a plurality of series parallel array laser diodes.

31. (Original) The method of claim 27, further comprising generating a compensating control signal to operate on the power supply to compensate for a failed LED in at least one of the first, second, and third LED color channels.

32. (Original) The method of claim 28, further comprising generating a compensating control signal to operate on at least one of the first, second, and third switches to compensate for a failed LED in at least one of the first, second, and third LED color channels, respectively.

33. (Previously presented) The method of claim 23, wherein the display device comprises a DMD, LCOS, or LCD.

34. (Currently Amended) A method for driving an array of light emitting devices (LEDs) in a color sequential projection display system comprising:

receiving a respective first and second color data for driving a respective first and second imaging devices;

generating a first and second control signal in accordance with the respective first and second color data;

generating a first light having a first wavelength from a first LED color channel during a first emission time period in response to the first control signal;

generating a second light having a second wavelength from a second LED color channel during a second emission time period in response to the second control signal, wherein the light having the first wavelength and the light having the second wavelength can be [[~~blended~~]] **balanced**, at least in part, by adjusting durations of the first emission time period and the second emission time period; and

propagating the first and second lights to the respective first and second imaging devices.

35. (Currently Amended) The method of claim 34, further comprising:

receiving a third color data for driving a respective third imaging device;

generating a third control signal in accordance with the third color data;

generating a third light having a third wavelength from a third LED color channel during a third emission time period in response to the third control signal, wherein the light having the first wavelength and/or the light having the second wavelength and the light having the third wavelength can be [[~~blended~~]] **balanced**, at least in part, by

adjusting the durations of the first emission time period, the second emission time period and the third emission time period; and

propagating the third light to a respective third imaging device.

36. (Original) The method of claim 35 wherein the first, second, and third LED color channels emit red, green, and blue light, respectively.

37. (Original) The method of claim 35 wherein the first, second, and third LED color channels emit yellow, cyan, and magenta light, respectively.

38. (Original) The method of claim 35 wherein the first, second, and third control signals operate on a first, second, and third current source coupled to the first, second, and third LED color channels to continuously generate the first, second, and third lights, respectively.

39. (Original) The method of claim 38 wherein the first, second, and third control signals further operate to adjust a current level of each of the first, second, and third current sources to adjust the brightness of the first, second, and third lights, respectively.

40. (Original) The method of claim 35, wherein the first, second, and thirds LED color channels are comprised of at least one of a plurality of series parallel array of light emitting diodes.

41. (Original) The method of claim 35, wherein the first, second, and third LED color channels are comprised of at least one of a plurality of series parallel array laser diodes.

42. (Original) The method of claim 38, further comprising generating a compensating control signal to operate on at least one of the first, second, and third current sources to compensate for a failed LED in at least one of the first, second, and third LED color channels, respectively.

43. (Original) The method of claim 35, wherein the imaging device comprises a DMD, LCOS, or LCD.

44. (Previously presented) The apparatus of claim 2 wherein the first light transmission guide comprises a first plurality of optical fibers optically coupled with one or more of the LEDs from the first set of LEDs and a light pipe integrator coupled with the first plurality of optical fibers, and wherein the second light transmission guide comprises a second plurality of optical fibers optically coupled with one or more of the LEDs from the second set of LEDs and a light pipe integrator coupled with the second plurality of optical fibers, and further wherein the third light transmission guide comprises a third plurality of optical fibers optically coupled with one or more of the LEDs from the third set of LEDs and a light pipe integrator coupled with the third plurality of optical fibers.

45. (Previously presented) The apparatus of claim 44 further comprising a first display device to receive light from the first set of LEDs through the first transmission guide, a second display device to receive light from the second set of LEDs through the second transmission guide and a third display device to receive light from the third set of LEDs through the third transmission guide.

46. (Previously presented) The apparatus of claim 45 wherein the first, second and third display devices comprises one or more of: a micromirror device, a transmissive liquid crystal display, and a reflective liquid crystal display.

47. (Previously presented) The apparatus of claim 46 further comprising an optical combiner to receive light from the first, second and third display devices.

48. (Previously presented) The apparatus of clam 47 further comprising a projection lens to project an image provided by the optical combiner.